

WHAT IS CLAIMED IS:

1. A high-carbon steel pipe having superior cold workability and induction hardenability, wherein said steel  
5 pipe has a composition containing, by mass %,  
C: 0.3 to 0.8%,  
Si: not more than 2%, and  
Mn: not more than 3%,  
the balance consisting of Fe and inevitable impurities, and  
10 said steel pipe has a structure with the grain size of cementite being not greater than 1.0  $\mu\text{m}$  at any positions including a seam.
2. A high-carbon steel pipe according to Claim 1,  
15 wherein said steel pipe further contains in addition to said composition, by mass %, one or more selected from among Cr: not more than 2%, Mo: not more than 2%, W: not more than 2%, Ni: not more than 2%, Cu: not more than 2%, and B: not more than 0.01%.
- 20 3. A high-carbon steel pipe according to Claim 1 or 2, wherein said steel pipe further contains in addition to said composition, by mass %, one or more selected from among Ti: not more than 1%, Nb: not more than 1%, and V: not more than 25 1%.

4. A high-carbon steel pipe according to any one of  
Claims 1 to 3, wherein an r-value is not less than 1.2 in  
the longitudinal direction of said steel pipe at any  
5 positions including the seam.

5. A method of producing a high-carbon steel pipe  
having superior cold workability and induction hardenability,  
said method comprising the steps of:

10 preparing a base steel pipe having a composition  
containing, by mass %,

C: 0.3 to 0.8%,

Si: not more than 2%, and

Mn: not more than 3%; and

15 carrying out reducing rolling on said base steel pipe  
at least in the temperature range of (Ac<sub>1</sub> transformation  
point - 50°C) to Ac<sub>1</sub> transformation point with an accumulated  
reduction in diameter of not less than 30%.

20 6. A method of producing a high-carbon steel pipe  
according to Claim 5, wherein said base steel pipe is a seam  
welded steel pipe produced by the steps of slitting a steel  
strip into a predetermined width, removing droops in slit  
surfaces, and joining the slit surfaces to each other by  
25 electrical resistance seam welding.